

NATIONAL PARK SERVICE



# THE KLONDIKE GOLD RUSH OF 1898

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A Resource Guide to  
"The Last Grand Adventure"





# *THE NATIONAL PARK SERVICE*

*"The Service thus established shall promote and regulate the use of Federal areas known as national parks, monuments and reservations by such means and measures as conform to the fundamental purpose of the said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations. "*

*-1916 Organic Act*



## NATIONAL PARK

### UNIT TYPES:

- National Battlefield; National Battlefield Park; National Military Park; National Battlefield Site- 25
- National Historical Park; National Historical Site; International Historic Site- 125
- National Lakeshore- 4
- National Memorial- 29
- National Monument- 76
- National Park- 58
- National Parkway- 4
- National Preserve/Reserve- 20
- National Recreation Area- 18
- National Scenic Trail- 3
- National Seashore- 10
- National River; National Wild and Scenic River; National Riverway- 10
- Without Designation- 11

## Klondike Gold Rush National Historical Park

Congress established Yellowstone National Park March 1, 1872, in the Territories of Montana and Wyoming, " ... *as a public park or pleasuring ground for the benefit and enjoyment of the people ...* ," and placed it "*under the exclusive control of the Secretary of the Interior.*" Yellowstone was the first National Park in the world. Today there are more than 1,200 national parks or equivalent reserves in more than 100 countries.

President Woodrow Wilson signed the law establishing the United States National Park Service, August 25, 1916. In part this law states:

*"The Service thus established shall promote and regulate the use of Federal areas known as national parks, monuments and reservations by such means and measures as conform to the fundamental purpose of the said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations. "*

Since 1916, the National Park System has grown to include 398 units and more than 84 million acres. These areas not only protect unique natural values and biological diversity, but also prehistoric, historic, and cultural values as well.

For more information about the National Park System in general, the U. S. Government Printing Office publication, *The National Parks Index 1997-1999*, gives a complete listing of all of the sites that are managed by the National Park Service. The employees and volunteers of the National Park Service bring a diversity of background and skills to their work. Some park rangers perform resource and visitor protection duties; others work in resource education. Administrative staff,

maintenance employees, trail crew, scientists, technicians, researchers, historians, architects, and many others work as a team to care for sites in the National Park System.

On June 30, 1976, President Gerald Ford signed the law authorizing Klondike Gold Rush National Historical Park. In part, the law states, *"That in order to preserve in public ownership for the benefit and inspiration of the people of the United States, historic structures and trails associated with the Klondike Gold Rush of 1898, the Secretary of the Interior is authorized to establish the Klondike Gold Rush National Historical Park..., Consisting of a Seattle unit, a Skagway unit, the Chilkoot Trail unit and the White Pass Trail unit..."*

For more information about the Skagway, Chilkoot and White Pass Trail units contact:

Superintendent  
Klondike Gold Rush National Historical Park  
PO Box 517  
Skagway, AK 99840-0517  
907-983-2900

The law authorizing the National Historical Park also stated, *"... within the Pioneer Square Historic District in Seattle ... the Secretary may select a suitable site for the Seattle unit ...."* Today, true to the spirit of the legislation, the Seattle unit of the park is located in the heart of the historic Pioneer Square neighborhood at 117 South Main Street. In the park

brochure for the Seattle unit is a map depicting the boundaries of the Pioneer Square Historic District.

For Information on the Seattle unit and the Pioneer Square Historical District, please contact:

Superintendent  
Klondike Gold Rush National Historical Park  
319 2nd Ave. S.  
Seattle, Washington 98104  
Telephone: (206) 220-4240

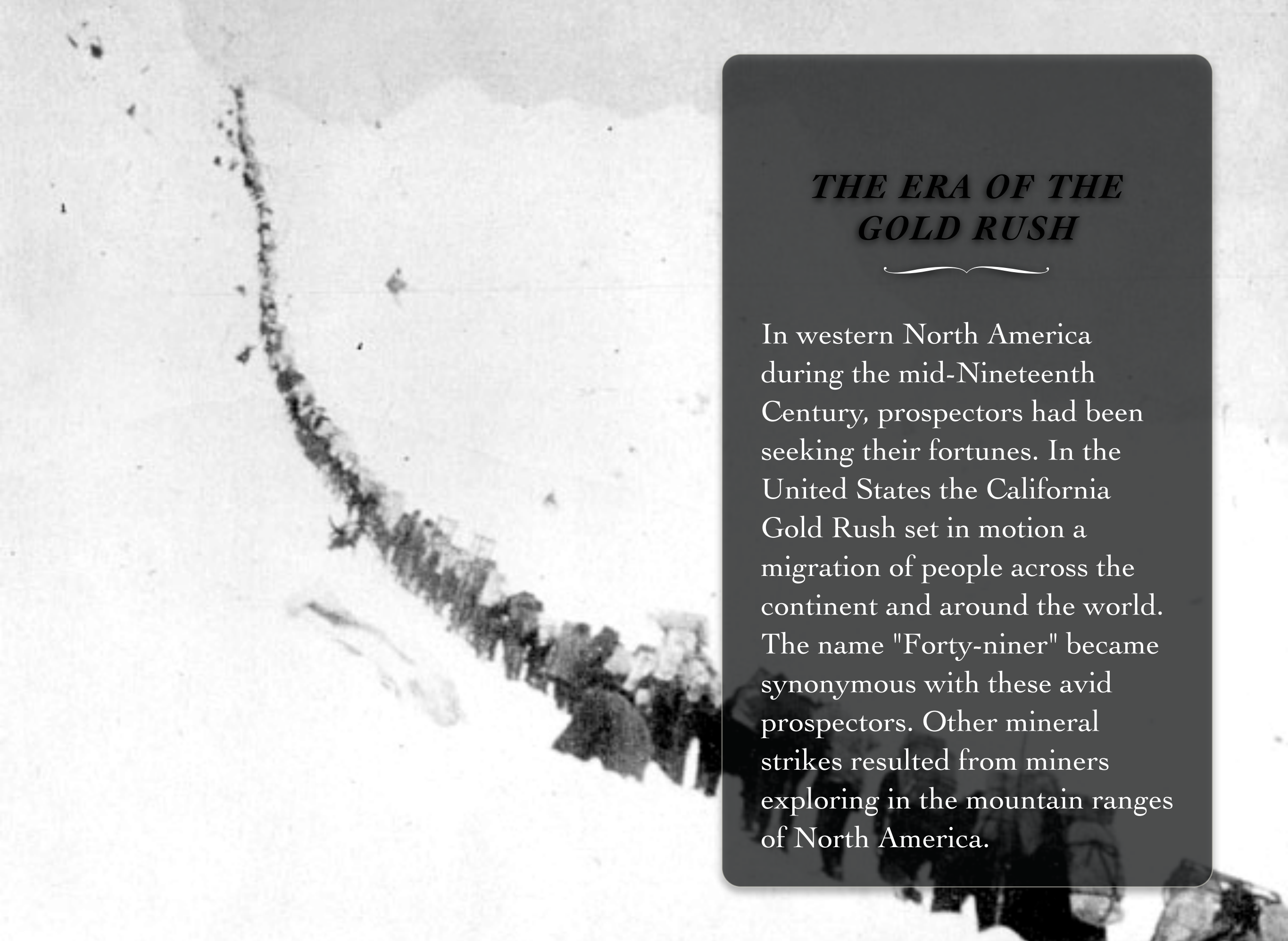
Parks Canada, Canada's national park service, recognizes the Klondike Gold Rush natural and cultural values by managing Chilkoot Trail National Historic Site in British Columbia and the Klondike National Historic Sites in Dawson City, Yukon Territory.

For more information on Canadian park units contact:

Parks Canada  
Area Superintendent  
Klondike National Historic Sites of Canada  
Box 390  
Dawson City, Yukon Territory Y0B 1G0  
Canada  
867-993-7200







## *THE ERA OF THE GOLD RUSH*

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In western North America during the mid-Nineteenth Century, prospectors had been seeking their fortunes. In the United States the California Gold Rush set in motion a migration of people across the continent and around the world. The name "Forty-niner" became synonymous with these avid prospectors. Other mineral strikes resulted from miners exploring in the mountain ranges of North America.



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## SECTION 1



# Discovery of the Klondike

Robert Henderson, of Nova Scotia, had been prospecting for gold along the tributaries of the Yukon River. In August of 1896, George Washington Carmack his Tagish Indian wife Kate (Shaaw Tlaa); her brother "Skookum Jim," James Mason (Keish); and their nephew, Dawson Charlie (Kaa Goox) struck up a conversation with Henderson as he passed through the Carmack's camp.

As they talked, Henderson invited Carmack to work his claim on Hunker creek, but insisted Kate, Jim, and Charlie stay behind. Henderson did not care for the natives who lived along the Yukon river. Henderson may have also suggested to Carmack that he look up Rabbit Creek, a tributary of the Klondike River, for gold deposits. On August 16, 1896, Carmack and Jim searched along Rabbit Creek and when Skookum Jim saw "gold, shining like cheese in a sandwich." Carmack and Dawson Charlie rushed over and

Carmack dipped a gold pan into the gravel. The discovery pan yielded more than a 1/4 ounce! This was outstanding! A good "pan" was considered one that yielded much less.

Skookum Jim remained to guard the area while the others rushed to Forty Mile to register the claims. Carmack named himself as the discoverer, entitling him to two claims and registered one claim each for Skookum Jim and Dawson Charlie. He then renamed Rabbit Creek "Bonanza."

After filing the claim, George Carmack went to Bill McPhee's Saloon, a popular spot for Yukon prospectors. Calling for attention, he paused dramatically and announced, "Boys, there's been a strike on Rabbit Creek." Carmack's nickname in Fortymile had been "Lyin' George," but this time, he was telling the truth.

Within a matter of days, Bonanza and Eldorado Creeks were staked from end to end. The unwritten "miners code" said that Carmack was to send word to Robert Henderson so that Henderson could stake a claim on the creek that he had suggested. Carmack, still angry over the slight to his native Yukon family, did not. By the time Henderson arrived on the scene, there was no land left to stake.

Although the gold was first discovered in August 1896, it took almost a year for the word to get out to the rest of the world. For the next eleven months, those first prospectors mined the gravel of the Klondike and its tributaries, accumulating a tremendous amount of gold. Known as the



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"Klondike Kings," many of these prospectors decided to return to the United States after a year in the goldfields.



## SECTION 2

# The United States in 1897

Why would someone leave their home to travel to the Klondike goldfields? The answer cannot be found in bank accounts or photo albums. Instead, consider the human spirit of the late 1890s. A severe depression called the "panic of '93" rocked the American economy, sending prosperous businesses into bankruptcy and putting the nation's morale into a downward spiral. There was no end in sight to the desperation felt by the thousands unemployed.

In the 1890 the Census Bureau declared that the western frontier had closed. The information that the census collected indicated that every region of the contiguous United States had experienced settlement. For the wanderers, the adventurers, and the explorers, this was the end of an era. The only place left to them was the great north - Alaska and northwest Canada. The Last Frontier.

The rumors of a big strike on the Yukon River in Canada were proven to be true with the arrival of the SS Excelsior in San Francisco on July 14, 1897. The \$750,000 of gold on board caught the attention of people across the country, especially those in Seattle. The miners arriving in San Francisco let it be known that the SS Portland bound for Seattle, was carrying even more gold than the SS Excelsior.



The Seattle Post-Intelligencer sent a group of reporters out on a chartered tug to intercept the SS Portland as it neared Seattle. After meeting the SS Portland and

interviewing its passengers, the tug steamed back to Seattle. The news of the arrival of the SS Portland and the gold she carried had already hit the streets as the ship prepared to dock. What had been a rumor was now known to be a fact.

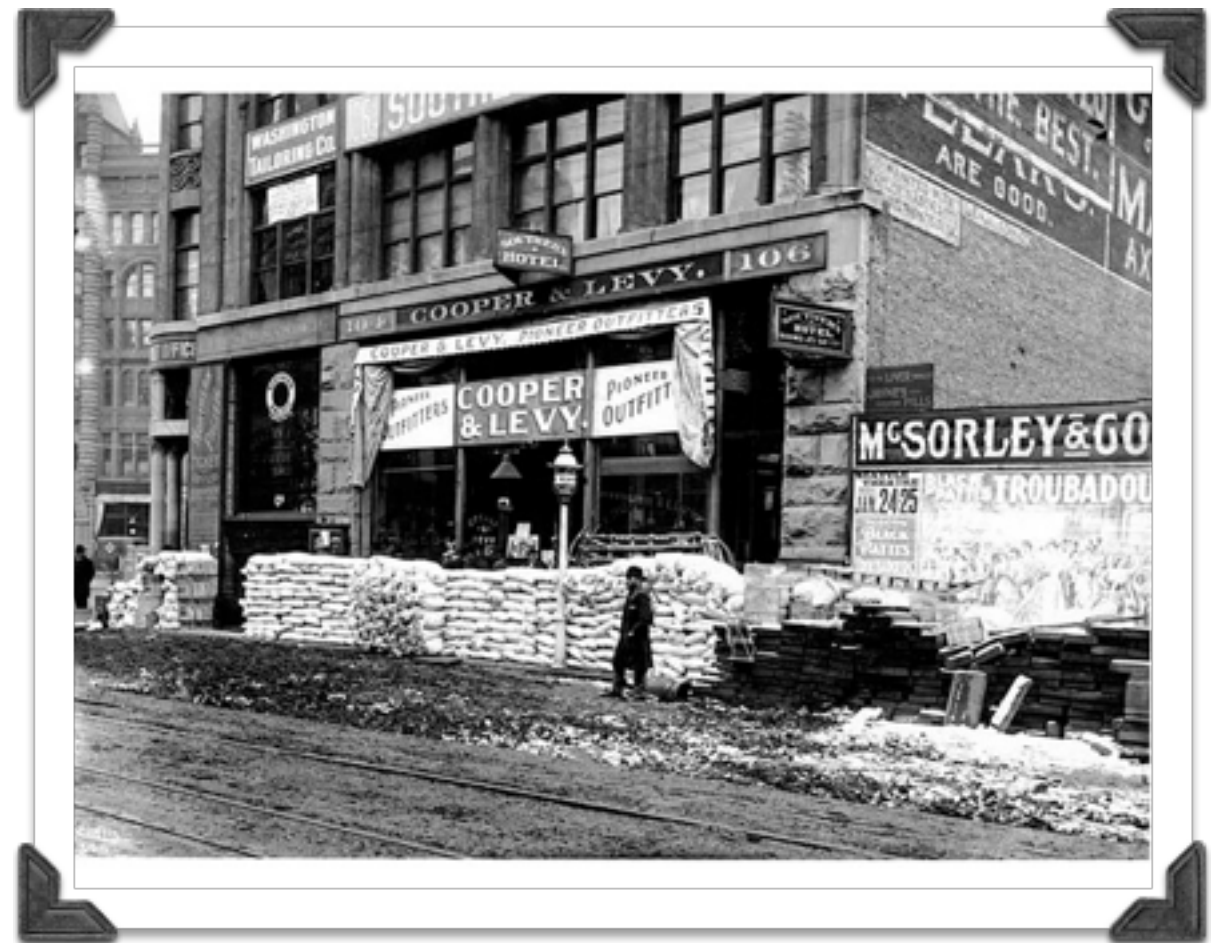
In an article written by Beriah Brown were the words that would trigger the great stampede: *"At 3 o'clock this morning the steamship SS Portland from St. Michael for Seattle, passage up Puget Sound with more than a ton of solid gold on board .... A ton of gold and 68 passengers."* The SS Portland actually carried at least two tons of gold.

The initial stampede was not to the Klondike but rather to Schwabacher's Dock (near the present Seattle Aquarium). As the SS Portland arrived at 6:00 a.m. on July 17, 1897, 5,000 people flooded the waterfront. They were eager to see the gold and to hear firsthand stories of the sixty-eight miners on board. It was almost as if just hearing the miners stories would bestow the touch of Midas... or so many hoped!

By 9:30 that same morning, people were resigning from their jobs. The promise of a pay check, no matter how large or small, was no match for the "certain" wealth to be made in the Klondike. Streetcar operators, salesmen, policemen, ministers, even the Mayor of Seattle, W.D. Wood, left their jobs. In ten days, more than 1,500 people had left for the Klondike, and many more were waiting to join them.

From 1897 to 1898 thousands of stampeders came through Seattle on their way to the Klondike Goldfields. As men, women and families began passing through the city their impact was felt immediately, revitalizing the city's struggling economy.

Merchants, who for four years had been feeling the effects of the Panic of 1893, were suddenly set upon by frenzied miners preparing for the journey north.



Businessmen such as Isaac Cooper and Louis Levy, the proprietors of Cooper and Levy; Edward Nordoff, the owner

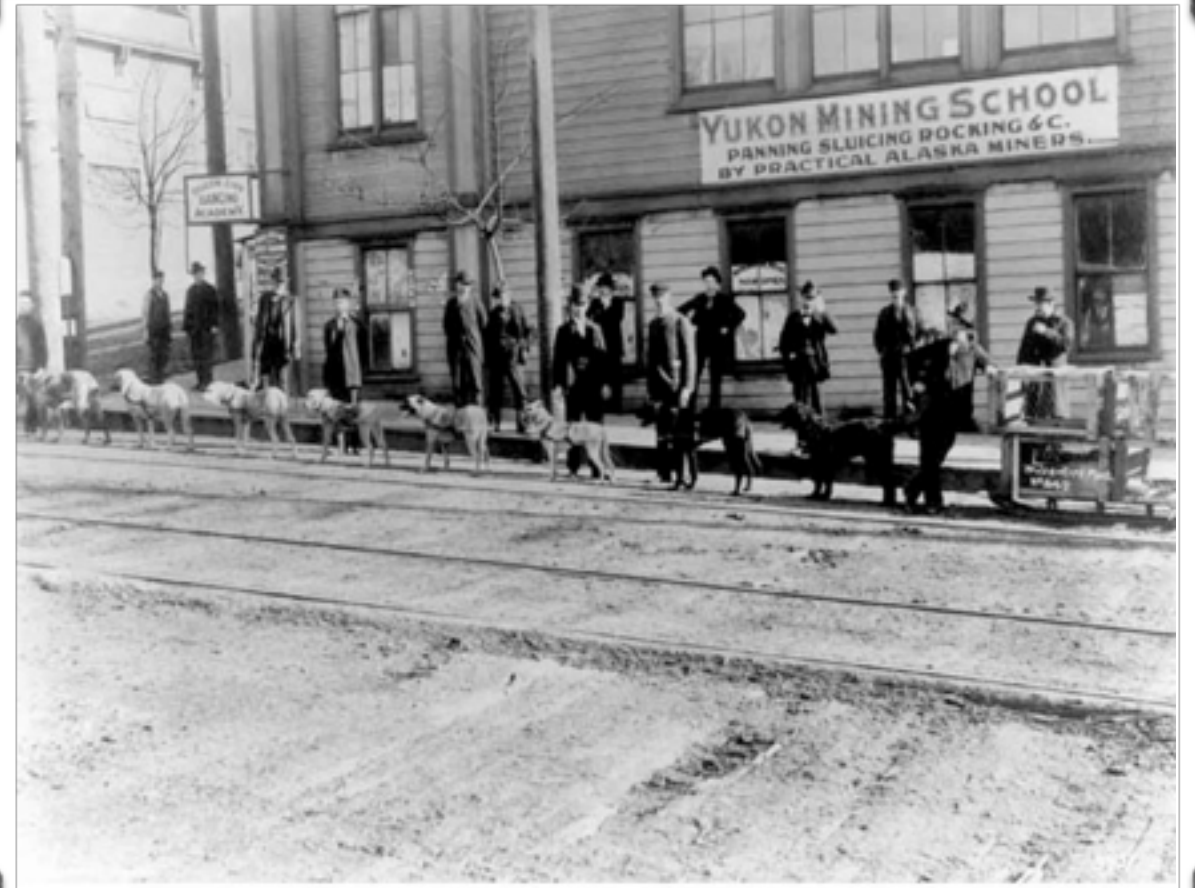


of the Bon Marche; and D.E. Frederick and Nels Nelson, the two partners of Frederick and Nelson, were all doing well.

On average, an outfit for two people cost \$250 to \$500. In the first eight months of the rush, millions of dollars worth of goods were sold to stampeders heading north, making Seattle the prominent retail center in the Pacific Northwest.

Because so many prospective miners flocked to Seattle to purchase supplies and secure transportation to the north, thousands made Seattle a temporary home. Merchants welcomed this flood-tide of customers to the city, but hotel rooms and boarding houses were scarce. Whether arriving by boat or train, newcomers swarmed to downtown Seattle to find a "flop," or bed. Spare rooms, basements, and attics were converted into living quarters for stampeders awaiting transportation to Skagway and other points north.

Pioneer Square, then Seattle's downtown, offered many diversions to those who had time and money to spare. Hungry stampeders could purchase a meal at the Merchant's Cafe or one of the many restaurants, cafes, and eateries that were spread throughout the business district. Abundant gambling halls, variety theaters, saloons, and brothels also catered to the whims of many a gold rusher. Adding to the neighborhood's already rough-and-tumble reputation, petty thieves and confidence men preyed upon unsuspecting stampeders.



## SECTION 3

# Boomtown in Business

Seattle did not have a U.S. Assay Office to purchase and process the miners raw gold. In order to prevent the loss of this potential revenue to the assay office in San Francisco, local merchants and banks purchased the miners raw gold. Prominent Seattleites also vigorously lobbied Congress for the establishment of an assay office in the city. Such an office opened in 1898. In its first year alone, the new Seattle office received and processed \$1.5 million in gold.

Most of the stampeders who went through Seattle never reached the goldfields. Many made Seattle their permanent home. Between 1897 and 1898 more than 7,000 people settled in Seattle raising the population from 56,800 to over 64,000.

The city offered many incentives to those who decided to stay, but the primary allure was job availability for the unemployed. The ranks of the jobless shrank rapidly as

business improved. Merchants hired clerks and stockers to keep up with rising demand for goods. Local manufacturers of equipment and clothing, food processors and shipyards all needed workers as well. The City of Seattle was even hiring. Municipal workers and police officers were needed to replace those who had left in search of gold.



The overall effect was a complete metamorphosis for Seattle. Booms in business, population and national recognition, secured Seattle's viability as a major Northwest city. To be sure, the foundations for the Seattle that we know today were laid during this period.



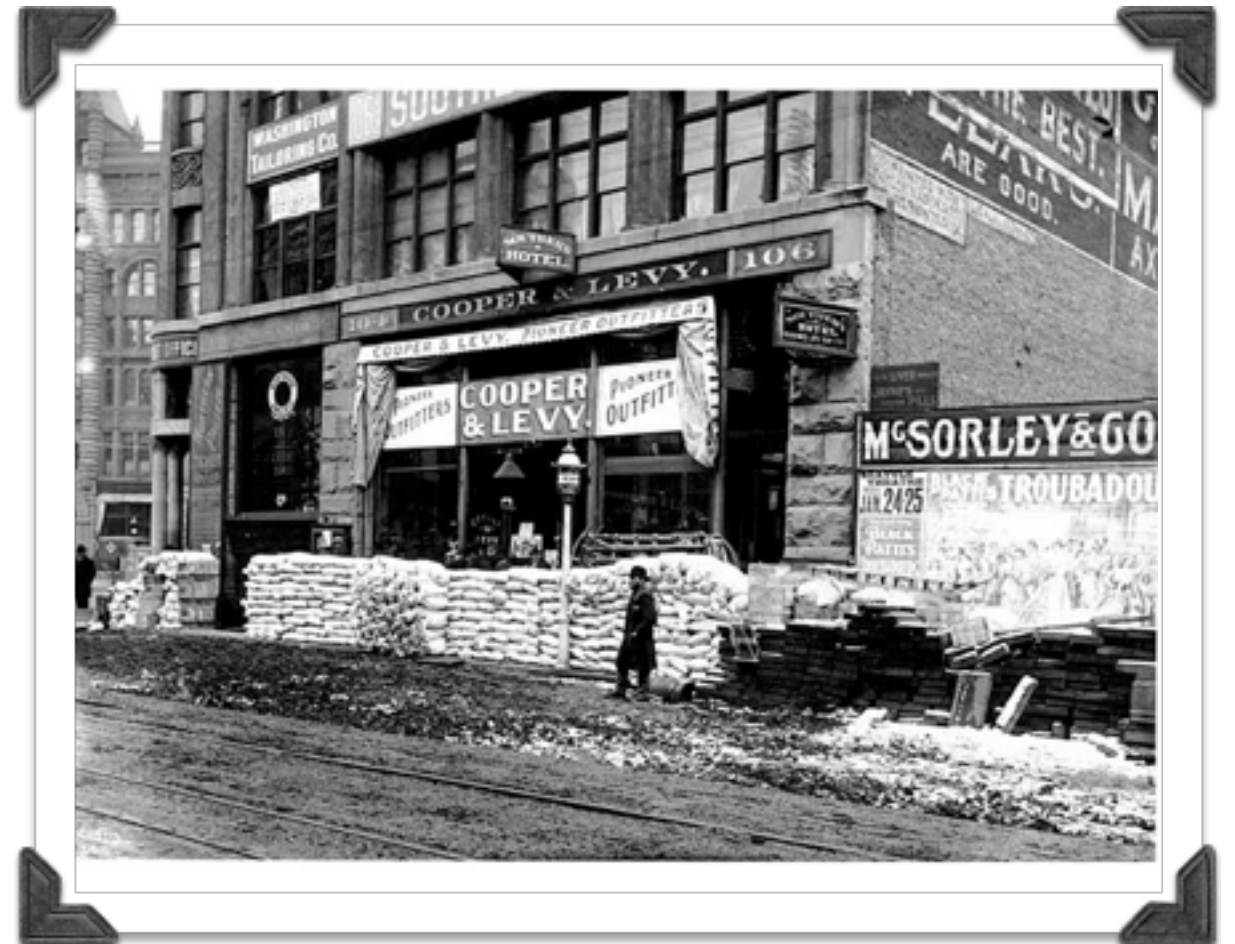
Despite the fact that gold was discovered on Canadian soil, the Seattle Chamber of Commerce began a campaign to sell Seattle's services to the Klondike-bound stampeders. While Vancouver and Victoria, in British Columbia, Tacoma, Washington and Portland, Oregon all attracted crowds of stampeders, Seattle dominated the marketplace. The reason was simple: Erastus Brainerd.

Mr. Brainerd was hired by the Chamber of Commerce to head the "Bureau of Information," a committee organized by city officials expressly to draw the world's eyes to Seattle as a developing port and commercial center. Brainerd, a Harvard educated journalist, was also an extraordinary salesman. His plans were ambitious:

- He took out advertisements in hundreds of newspapers throughout the United States.
- He prepared a fact sheet on the goldfields and Seattle for the mayor of every U.S. community with a population of 5,000 or more.
- He sent a personal letter of invitation to the rulers of many foreign governments.
- He wrote newspaper articles on the gold rush and Seattle which were really advertisements thinly disguised as "news stories."

Brainerd's advertising campaign established Seattle's reputation as the best source of supplies and transportation

to the north. Although there were many other cities the stampeders could have chosen to depart from, a vast majority of the stampeders chose Seattle simply because Erastus Brainerd told them to!



## SECTION 4

# The Journey North

Three main routes were commonly used to reach the Klondike goldfields, located near the junction of the Yukon and Klondike rivers.

The all water route, referred to as the Rich Man's Route, involved taking a ship from Seattle or San Francisco to St. Michael, Alaska. At that point, travelers transferred to a river boat that steamed up the Yukon River approximately 1,700 miles to Dawson City. This route was advertised by the Alaska Commercial Company to cost \$150 and take approximately one month to complete. However, this proved to be an optimistic estimate. Due to frequent storms and problems encountered in navigating the Yukon River, this voyage commonly took over two months. Many stampederers spent more than a year reaching the Klondike because their vessels became trapped in the frozen river. The rates also jumped higher than the advertised price. A \$2,000 fare was

not uncommon at the height of the rush. This translates into \$54,000 in 1996 dollars. Approximately 10% of the stampederers used this route.

The most successful route was the sea/land route up the Inside Passage. Leaving from Seattle, or one of the other seaports on the west coast of the US and Canada,



stampederers would take a ship to Skagway or Dyea, twin ports at the head of the Lynn Canal in Alaska. They then traveled by foot over the Chilkoot or White Pass trails to Lake Bennett in Canada. It was here that they built boats to carry themselves and their supplies down the Yukon River to Dawson City.



The demand for steamships to carry passengers to the Klondike was high and ships were pulled off of other routes to fill the need. Many ships that had been out-of-service were quickly renovated and placed back into service. Literally anything that could float was used. Many old sailing ships had their masts removed and were converted into barges that were then towed by tug boats. Ships of all sizes and types were used from the small SS Dora, just over 100 feet, to the SS Athena, a passenger steamer over 365 feet in length. Propeller driven steam ships were the most common, but anything thought to be seaworthy - and some that were not - were used.

Overcrowding on ships headed to the Klondike was common. Small steamers, such as the SS Amur, designed to carry 160 passengers, were outfitted with temporary quarters, and carried as many as 500 passengers. These temporary quarters, usually consisted of a bunk bed, commonly placed in the holds, next to the temporary animal stalls. As the demand for berths increased, the price went up; from ten to twenty dollars prior to the stampede, to as much as fifty dollars for a one-way ticket from Seattle to Skagway, Alaska.

The waterfront of Seattle became a mass of confusion as stampeders, well-wishers, and tons of freight lined the docks waiting to be loaded. Over 9,000 people and 36,000 tons of supplies left Seattle in the first six weeks of the gold rush.



## SECTION 5

# The Passes

The stampeders who chose the sea/land route via the Inside Passage faced another challenge when they arrived at Skagway or Dyea, Alaska. Two trails, the White Pass Trail from Skagway and the Chilkoot Trail from Dyea crossed through the Coast Range Passes to lakes Lindeman and Bennett, the headwaters of the Yukon River.

The White Pass Trail, named for one of Canada's Minister's of the Interior, was less well known. William Moore, after a personal reconnaissance through the White Pass in 1887, believed that, for people traveling into the Yukon River valley, this route would be more popular than the Chilkoot Trail.

Even though the trail over White Pass was seven to ten miles longer, the summit of White Pass was at least 500 feet lower than the Chilkoot Pass. Upon considering this advantage, Moore thought a wagon road and even a railroad

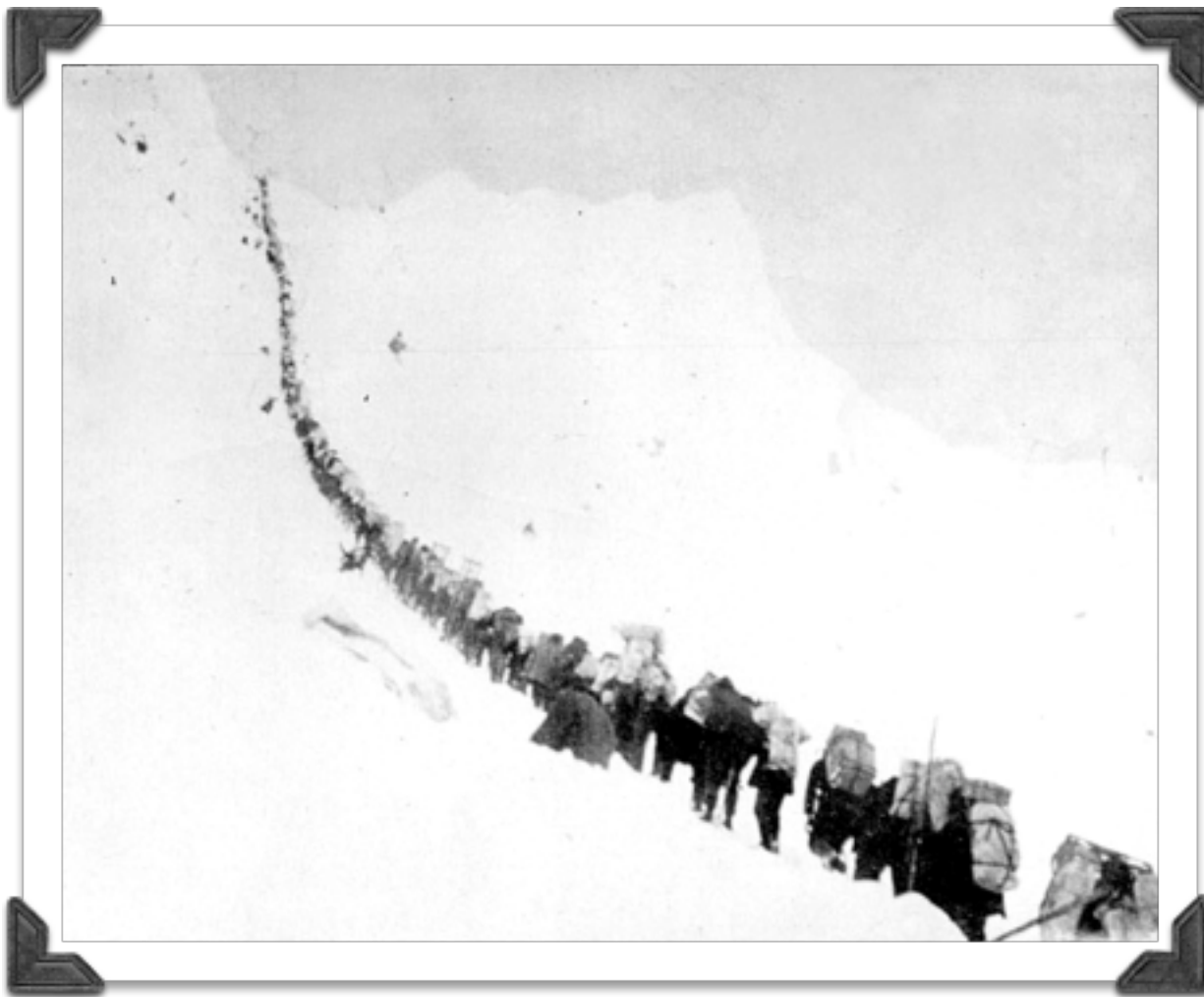


could be built over White Pass. Given these possibilities, Moore returned to the Skagway valley to file a homestead claim and develop Mooresville. He wanted to be ready when the stampeders arrived, nearly ten years later.

The stampeders who arrived in Skagway in 1897 wanted to believe that the White Pass was the better route. Those stampeders who brought pack animals expected to find an improved trail. Instead, in less than three months, 3,000 horses died on the "Deadhorse Trail." A combination of "Klondicitis," the panic and rush to reach the Klondike before the next person; inexperience, lack of proper feed and poor trail conditions contributed to the high death toll.



By September 1897, the White Pass Trail had to be closed due to the awful conditions and rotting horse flesh. Ultimately, improvements were made to the route, and attempts to collect tolls was also tried. Many stampeder used the frozen Skagway river or simply knocked down the toll gates. The construction of the White Pass and Yukon Route Railroad, from May 27, 1898 to July 29, 1900, spelled the end of use of the trail.



During the gold rush, the Chilkoot Trail proved to be the most direct route to the headwaters of the Yukon River.

The trail had been a vital link in an extensive trade network in the region. The Tlingits, a Native American people of Alaska and Canada, controlled the Chilkoot Trail. The Tlingits made annual trips from the coast carrying fish oil, clam shells, and dried fish to trade for products of the native peoples of the interior.

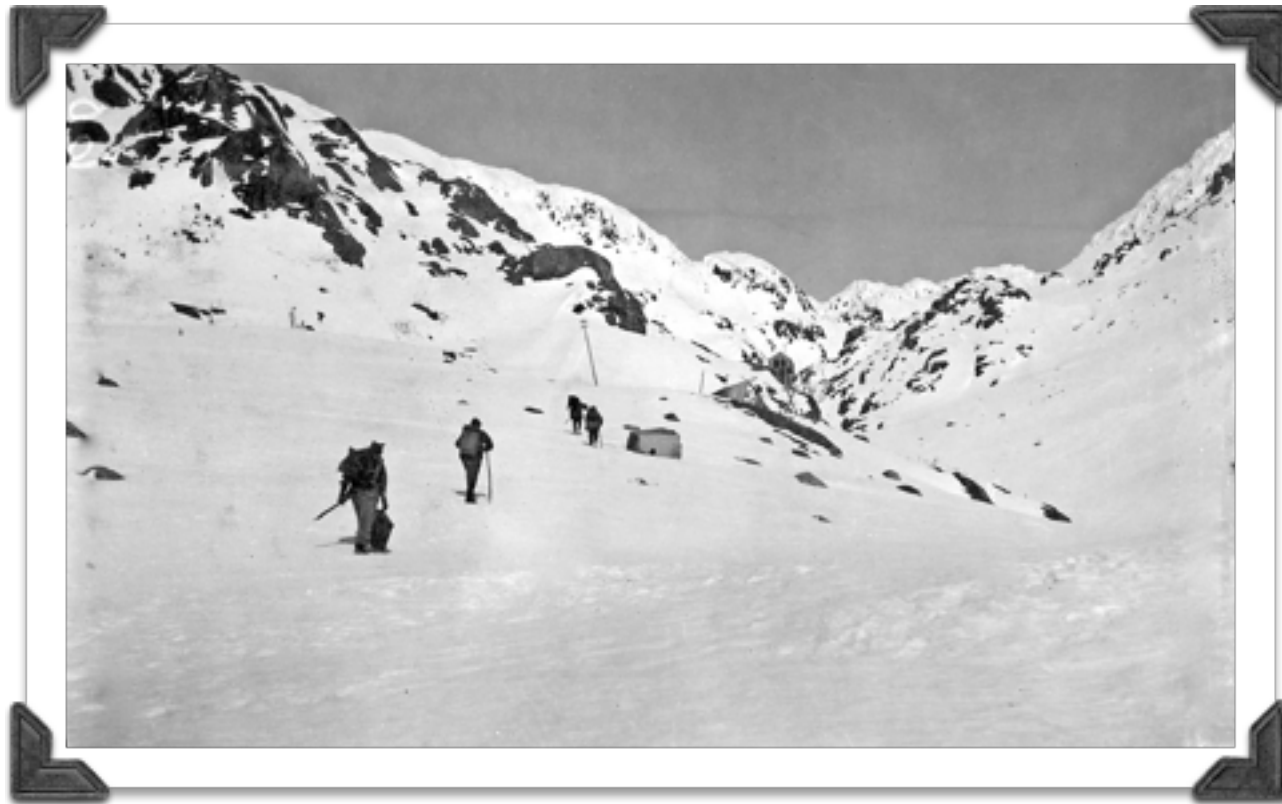
During the Klondike Gold Rush, the trail began at the town of Dyea, just west of Skagway, and traveled thirty-three miles, over Chilkoot Pass, down to Lake Bennett. While the Chilkoot was ten miles shorter than the White Pass Trail, the elevation gain was constant for the first fifteen miles of the trail.

The most memorable portion of the trek was the final ascent to the 3,739 foot summit of Chilkoot Pass. The trail was so steep that steps were cut into the ice and snow to prevent the stampeder from sliding down the pass. The trip was by no means easy. Letters and newspapers tell of the hardships and dangers of the Chilkoot, such as the great avalanche of April 3, 1898 that killed more than sixty people.

In the early autumn of 1897 an enterprising stampeder setup a horse-powered tram that could hoist luggage between a point on the pass, known as the Scales, to the summit for a small fee. By the following Spring, there were three gasoline and steam powered tramways in operation that ran up and down the entire length of the pass.

If a stamperder could afford the fee, five to fifteen cents a pound, buckets suspended on a cable could carry cargo to the summit.

At the summit of Chilkoot Pass, Canadian Northwest Mounted Police set up a checkpoint. Stampederders would pay



duties on their goods, and the Mounties would inspect each outfit. To insure that those who entered Canada were prepared for the rough winter conditions, the "One Ton Law of 1898" was put into effect.

Early in 1898, no one was allowed entry into Canada without enough food, clothing, and equipment to exist safely for one year. The outfit consisted of 1200 pounds of food and 800 pounds of clothes and equipment, totaling 2,000 pounds

or one ton. Once a stampeder paid his duties to the Mounties, they could continue their trip to Lake Bennett, the headwaters of the Yukon River.

The Chilkoot and the White Pass trails ended at two adjoining lakes: the Chilkoot at Lake Lindeman and the White Pass at Lake Bennett. While scores of people coming across the Chilkoot Pass stopped at Lake Lindeman, many continued onto Lake Bennett, fearing travel through the rapids between the two lakes.



## SECTION 6

# The Yukon River

The Yukon was the most obvious route to follow to the goldfields, but the journey was by no means easy. The upper portions of the Yukon River were navigable for approximately five months of the year; late May through mid-October. Because of their timing, or lack of it, several thousand people would find the Yukon River and the lakes completely frozen upon their arrival.. Regardless of where a stamper stopped, they all faced the same prospect: waiting for the river to thaw.

A major task facing most of the stampeders was the construction of a boat that would allow them to complete their journey to the Klondike. Some had purchased prefabricated boats that were hauled over the passes in pieces and then later assembled. Most, however, were faced with the prospect of building a boat. Very few had any experience as boat builders. However, this did little to

discourage them from the task at hand. The area around the lakes was quickly striped of standing timber so the stampeders could satisfy their need for wood.



Finally the day that all had been waiting for arrived. On May 29, 1897 the ice began to break and 800 boats set sail for the Klondike. A series of rapids was awaiting the stampeders as they moved down the Yukon River. In the first few days ten people drowned and more than 150 boats were wrecked. While this was cause for many to hesitate and consider the treacherous journey, for the Northwest Mounted Police it was a call to action.

As the magnitude of the "rush" grew, the responsibilities of the "Mounties" increased as well. They not only protected Canadian sovereignty, but the Mounties took a greater role in protecting the well being of the stampeder.

The Mounties, under the leadership of Superintendent Samuel Steele, established specific regulations for boats going down the Yukon. Only experienced pilots were allowed to navigate boats through the more difficult rapids. Women and children were required to walk around rapids.

lists containing this information were sent to police posts along the river to expedite searching for boats that failed to check in along the way. Because of the actions of the Northwest Mounted was lost. Police, over 7,000 boats safely made the 500 mile journey down the Yukon River to Dawson City.



The Mounties required each boat to display a serial number. This number, along with the names of the boat's occupants and the addresses of their next of kin, were recorded. The



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## SECTION 7



# The City of Gold

Dawson City was named for George M. Dawson, a government geologist, by Joseph Ladue the founder. When whispers of the gold rush began, Ladue knew that wealth was found more readily by supplying the stampedeers. Instead of rushing to stake a claim in the goldfields, he planned a town site on the swamp below the tapering mountain at the Klondike's mouth. Ladue returned to his sawmill and loaded his raft with enough timber to move it to the new town site. The sawmill and cabin Ladue built were the first buildings in the new mining camp.

Dawson City grew slowly that winter. By April 1897, there were about 1,500 people in the community. Dawson soon became a carbon copy of former gold crazed towns in the Alaska-Yukon area. By the summer of 1897, as more buildings and sidewalks were built, the original character of Dawson City was lost. The population was nearing 3,500.

During the peak of the Klondike gold rush, the population of Dawson City and its environs exceeded 30,000. It became so large that it resembled a large cosmopolitan city. It had a telephone service, running water, steam heat, electricity, dozens of hotels, motion picture theaters, a hospital, and many restaurants. Despite the amenities in Dawson, the city suffered from its share of problems. There was no sewer system or garbage disposal in Dawson so, by midsummer, the whole city was a reeking swamp. Malaria and typhoid epidemics swept over the city and scurvy was also prevalent due to the stampedeers poor diets.

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## SECTION 8

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# The Gold Fields

The Klondike Gold Rush was fueled by hope, rumors, and speculation; but what were the facts? Historians are fairly certain that over 100,000 people left for the Klondike region via the west coast port cities. Fewer than 40% completed the journey. Half of those who did complete the trip never even bothered looking for gold when they saw that the creeks were already staked.

The first claim in a district, called the Discovery Claim, was the center point of a mining district. The claims upstream from the Discovery Claim were numbered "One Above"; the claims downstream "One Below" and so forth. Proceeding the number was the name of the creek the claim was on.

Many of the original claim owners became very rich. Charley Anderson, dubbed "The Lucky Swede," purchased #29 above Eldorado for \$800. In less than four years, he had

removed more than one million dollars from it. Thomas Lippy staked #36 Below Eldorado, which he traded for #16 Below Eldorado. As luck would have it, over one million dollars was produced from #16 and very little from #36 below. This area of the Klondike has yielded the highest concentrations of placer gold in the world to date. In some areas, single pans were panning out at over \$500 to the pan.

Upon their arrival in Dawson City, a majority of the stampederers were quick to realize that all of the known gold deposits were claimed. Only a fortunate few who had the financial capital to purchase an existing claim, buy into partnership, or lease a claim, had an opportunity of finding gold. It is believed that only approximately 300 stampederers "got rich" (\$15,000 or more) from mining the goldfields.

Without a good claim or successful business, life in Dawson City and the Klondike gold fields was difficult at best, impossible at its worst. Those who survived either remained to make it their home or left, never to return.



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## SECTION 9

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# Gold! Gold! Gold!

Gold possesses several physical characteristics that make it unique and contribute to its relative value. Gold is so malleable (ability to be pounded into a sheet) that it can be pressed thinly enough to see through (gold leaf). It is so ductile (ability to be drawn into a wire) that 1 oz. can be drawn into a wire over forty miles long! Because gold is an excellent conductor of electricity, it is often used to plate electronic connections. Gold is impervious to virtually all substances (most acids, etc.) that cause other materials to corrode. This is why gold maintains its distinctive color and luster.

One characteristic of gold that is important to a prospector is its specific gravity. Specific gravity is a unit-less number that is the ratio of the weight of a given volume of substance to the weight of an equal volume of water. The ratio of the weight of an object to its volume is the density of

the object. The density of water is one gram per cubic centimeter, therefore, the specific gravity of an object is the numeric value of its density without units of weight and volume. Gold is an extremely dense mineral with a specific gravity of 19.2 (19.2 times heavier than water). Most minerals, and therefore rocks, are 2.5 to 4 times heavier than water. The extremely high specific gravity of gold is the reason why techniques such as panning and sluicing work.

Gold is deposited from hot solutions of water that move up into the crust of the earth, allowing minerals such as gold to be deposited as pressure and temperature decrease. The solutions may originate from molten rock below the earth's surface or from deeply buried sedimentary rocks. These solutions commonly move toward the surface of the earth along fractures. The mineral deposits occurring along fractures are called veins. On some occasions the mineralizing solution may move through the pores in the surrounding rock producing a disseminated deposit. Mining a material that is in place within the solid rock in which it was deposited is referred to as lode mining. However, the lode can be subjected to weathering and the erosive effects of streams, glaciers, wind, etc. A mineral deposit that is no longer in place within the solid rock in which it was deposited is a placer deposit. Placer deposits were mined in the Klondike. The source of this placer deposit was not located.

Placer mining involves removing gold from associated sediments. One of the least complicated and best known ways to do this is by panning. It is a portable means of finding gold that is inexpensive and requires little skill.

The technique for actually separating the gold from the gravel is relatively simple. The pan is filled with sand and gravel and then submerged in water. The pan is then shaken, allowing the denser materials to move to the bottom of the pan. The less dense material, which is now near the top of the pan, is rinsed away by tipping the pan and lifting it upward and out of the water. This process is repeated to concentrate the relatively dense material in the bottom of the pan. The material remaining will include more than gold. Nuggets and larger pieces of gold are picked out by hand or with tweezers. Finer grained gold is separated from the commonly associated black sand by using a magnet. After drying, a magnet will attract the magnetite, or "black sand," and leave the gold. "Flour" gold will typically be removed from the remaining sediment by mercury amalgamation. Mercury is placed in the pan, where it readily forms a mixture, or amalgam, with the gold. The amalgam is then heated. The mercury vaporizes and the gold remains.

For some prospectors, panning is the only method used to find gold. In the Klondike, panning was a preliminary sampling technique. In this instance, panning is utilized to allow a prospector to decide whether or not to stake a claim and establish a large scale mining operation. With panning,

only a small amount of material can be processed at any time. Even though gold concentrations were high in the Klondike, the key to potentially acquiring a large amount of gold would be to process a large amount of gravel.

One device that is more efficient than a pan is a sluice box. In its simplest form a sluice box is nothing more than an open-ended trough through which water flows. Riffles, small strips of wood, are commonly attached to the bottom of the sluice. Additionally, burlap or canvas may be placed beneath or between the riffles.

The method by which the sluice operates is simple. As water flows through the sluice, gold-bearing gravel is shoveled in. The running water carries away the less dense sediments whereas the heavier sediments (gold, black sand, etc.) settle to the bottom of the sluice. The riffles and the cloth trap these heavier sediments. Water is allowed to run through the sluice until it is clear of gravel, then the flow of water is stopped. The material that has accumulated at the bottom of the sluice is removed, the riffles cleaned, and then panned or amalgamated to separate the gold. If some type of cloth was placed along the bottom of the sluice, this cloth is removed at the end of the sluicing operations and burned. Any gold dust present in the cloth is easily separated from the ash.

In order to operate a sluice efficiently, it is essential to have an adequate supply of gravel and running water. Sluices were built either in or near streams. Gravel was typically



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removed from the bottom or the banks of the stream. However, this presented a problem in the Klondike because streams were frozen for eight to nine months in a year. This deprived the prospectors of flowing water and access to gravel located in the bed of the stream.

It is important to understand that stream sediments can be found in places where streams no longer flow. Through time, streams change their location. They can move across the floor of a valley, depositing material. Streams can also deepen their valley through erosion while simultaneously depositing material. This means that stream sediments may be found along the valley walls at elevations above that of the stream surface. These stream sediments that are no longer in contact with the stream may also contain gold.

To process these sediments, some sort of mining operation would have to be undertaken. In most cases, loose sediments cannot be mined utilizing the typical subsurface mining techniques of digging vertical shafts and lateral drifts. The passages would simply collapse. However, permafrost, or permanently frozen ground, exists in the Klondike. The "loose" stream sediments are always frozen. Mine passages could be safely constructed after controlled thawing, utilizing fires or steam.

In the years after the initial "rush," hydraulic mining was utilized to process larger amounts of gravel. Taking advantage of the abundance of water, rather than digging shafts into the permafrost, large cannons sprayed water

under high pressure onto the sediments. The sediments would wash down into the stream bed where they would be processed.

Miners would spend the winter months mining gravel, and the summer months performing "clean up": separating gold from gravel. Since the mines might be some distance from a source of water, a sluice was not a practical way to separate the gold from the gravel. Miners would typically use a rocker box to accomplish the task. A rocker box does not require the large amounts of water needed to operate a sluice.

## SECTION 10

# The Klondike Legacy

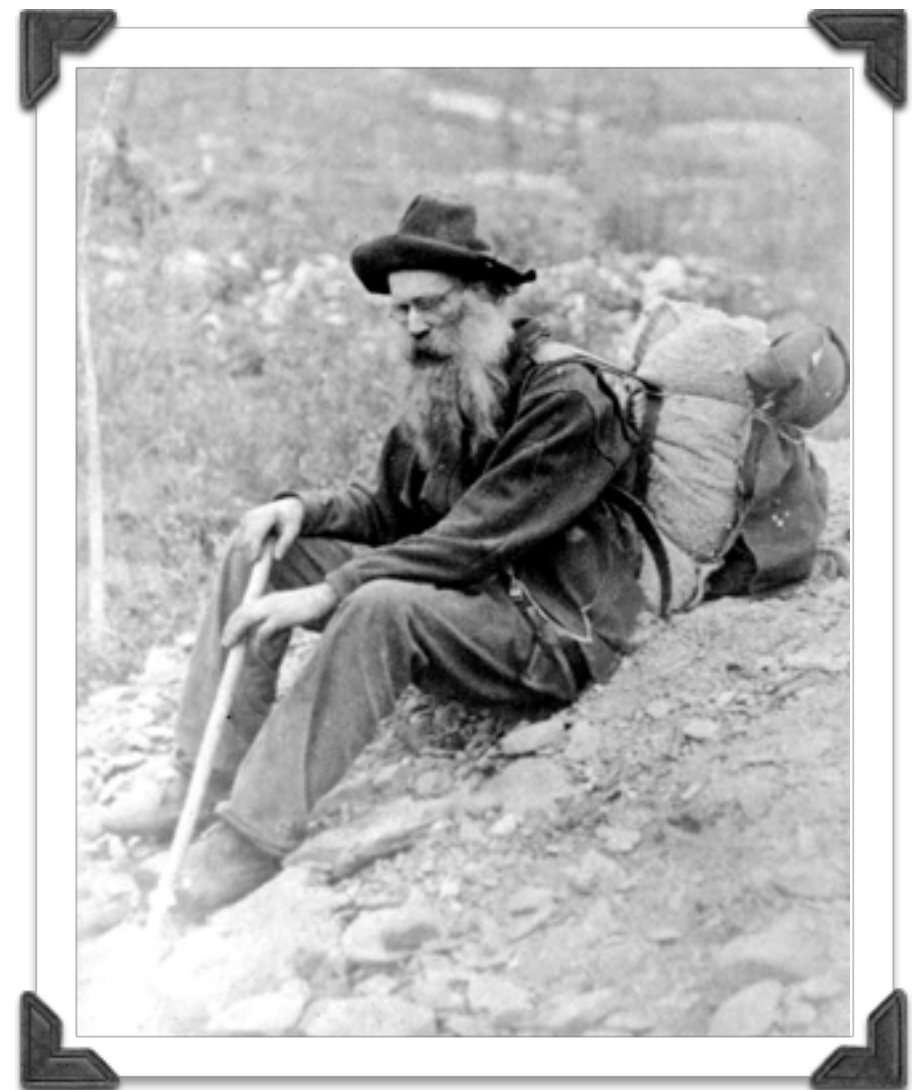
The riches that came from the Klondike gold fields combined with the profits made by Seattle's merchants triggered a period of explosive economic growth and change that lasted until 1910.

Seattle's prosperity, following the end of the gold rush in 1898, continued to attract people to the Pacific Northwest. In the decade after the gold rush more than 170,000 people migrated to Seattle. While most of these new residents came from other regions of the United States, Seattle attracted a substantial number of immigrants from Europe and Asia. By 1910 Seattle had one of the largest populations of Chinese and Japanese immigrants on the western seaboard.

Matching the growth in population, Seattle's city limits expanded as well. The city grew along every point of the compass, annexing small hamlets, such as Ballard to the

north, and a substantial portion of Lake Washington's western shore.

The city could not have grown in the fashion it did without the benefit of a vibrant economy. As miners returned to Seattle, many of them invested their fortunes into local businesses. John Nordstrom invested \$13,000 of his Klondike gold into a local shoe store owned by a cobbler he had met in Alaska. Existing outfitters, such as the Bon Marche, were able to capitalize on their successes in the gold





rush and transform their small store fronts into large department stores.

Given the volume of business, Seattle quickly surpassed Portland as the commercial center for the Pacific Northwest. Maritime links to San Francisco, Alaska and Asia in combination with direct railroad connections to Canada, California, the Midwest and Northeast, Seattle's manufactured goods and natural resources could be shipped both nationally and internationally.

As business flourished, Seattle's tax coffers began to grow, allowing city planners to consider a number of public works projects that would propel Seattle into the twentieth century. The numerous hills that loomed above Seattle were either eliminated or lowered in elevation. Starting at the turn of the century, and for the next fifteen years, millions of cubic feet of soil were moved. Once Seattle had room to grow, improvements were also made on the sewer, water and gas systems.

As Seattle's fortunes grew, the city's business community wanted to construct a ship canal connecting the two large fresh water lakes, Union and Washington, with Puget Sound. After numerous attempts by private contractors, with the help of the Corps of Engineers, a channel was dug between the two bodies of water. A dam, fish ladder, and lock system was built at Ballard, allowing vessels to pass from lakes into the Sound.



The buildings that have been preserved in Pioneer Square and the businesses that have roots in the 1890s, are important reminders of the part Seattle played in the Klondike Gold Rush. In contemporary Seattle, just as in 1897-98, thousands of customers still frequent the Bon Marche, Nordstrom and C.C. Filson. Concerned citizens have preserved the distinctive nineteenth century buildings that many of the stampeders frequented in Pioneer Square and along the waterfront. In 1976 Congress passed legislation that created Klondike Gold Rush National Historical Park, a park dedicated to telling the story of Seattle's role in the stampede north. The legacy of the rush continues.

**KLONDYKE**  
rush every day. You are going to a country where grub is more valuable than gold and frequently can't be bought for any price. We can fit you out quicker and better than any firm in town. We have had lots of experience, know how to pack and what to furnish.

**COOPER & LEVY**

**GOLD! GOLD! GOLD! GOLD!**  
**Sixty-Eight Rich Men on**

moment, as the tug was ordered sent to Seattle with the correspondent on board.  
The Sea Lion, Capt. Sprague, made the trip down in record-breaking time, arriving at 8 o'clock, at least two hours ahead of the Portland.  
The Portland has on board 18 miners with \$20,000 in gold and a man who has less than \$100. Some of them have over \$1000. Some of them are Seattle men,

Although most of the passengers are returning home with plenty of gold, they all advise and warn people who contemplate going to the Yukon not to think of taking in less than one ton of grub, and plenty of clothes. While it is a poor man's evening, yet the knowledge and provisions to be accumulated for inexperienced persons bound to shorten life in winter is worth much suffering during the winter. They should go prepared with all

and one or two have over \$1000.  
The steamer then went below and arrived and saw on two of his passengers, who came to the cabin and showed a few moments about the Klondike and the scene.  
Charles Berry.  
Charles Berry is reported as the richest man in the Klondike. With a mine he is all well, working well. The steamer says Mr. Berry was a poor miner and today he is in Seattle on his way to

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- ☒ A. Answer 1
- ☐ B. Answer 2
- ☐ C. Answer 3
- ☐ D. Answer 4

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- ☒ A. Answer 1
- ☐ B. Answer 2
- ☐ C. Answer 3
- ☐ D. Answer 4

Check Answer



We have...  
the Skin Elastic.  
STEWART & HOLMES DRUG CO., 703 First Avenue.

the Skin Elastic.

STEWART & HOLMES DRUG CO., 703 First Avenue.

The Post-Intelligencer chartered a tug at Port Townsend last night to visit a...  
The Post-Intelligencer wanted to get the

slight of Port Anapa and the Post-Intelligencer correspondent was almost long enough to get the thrilling story that follows.

But the Portland is a sleeping beauty. The Post-Intelligencer wanted to get the

has arrived, was married and took his bride to the Klondike last November. He is now on the Portland with \$20,000, the result of a winter's work and business's profits.

Frank Peterson, of Seattle, Mich., is another lucky miner. He went to the Klondike last autumn and he now returns with \$4,000, having worked two claims with nine men, three months, and he will

"There, you see those boys and that wife will, they mean to find more gold, and that would weigh nearly a ton and a half," was the captain's response to the reporter's question as to the amount of gold that was on board. He mentioned:

### Review 1.1 Lorem Ipsum dolor amet, consectetur

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- ☒ A. Answer 1
- ☐ B. Answer 2
- ☐ C. Answer 3
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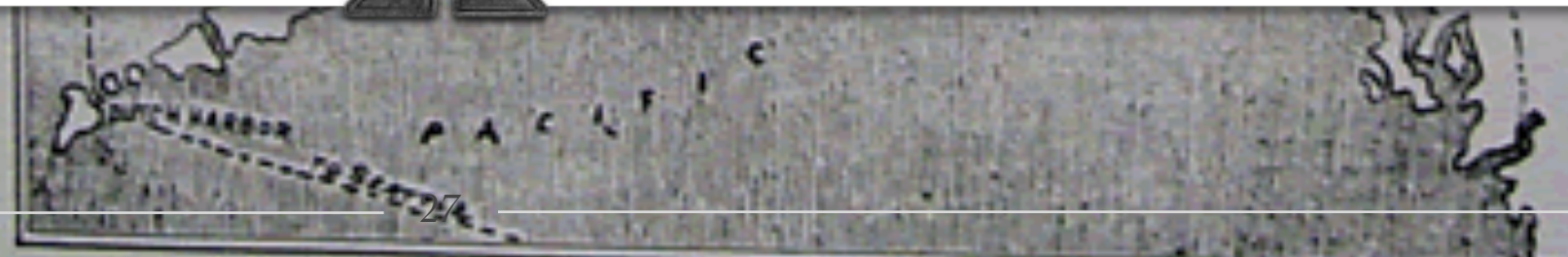
- ☒ A. Answer 1
- ☐ B. Answer 2
- ☐ C. Answer 3
- ☐ D. Answer 4

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Crockery

until we place on sale the O. A. Schade & Co. Crockery stock.

See Tomorrow's Paper for Particulars.



## Review 1.3 Lorem Ipsum dolor amet, consectetur

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- ☒ A. Answer 1
- ☐ B. Answer 2
- ☐ C. Answer 3
- ☐ D. Answer 4

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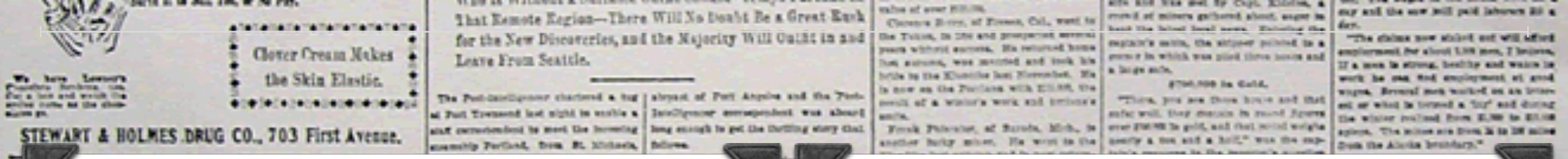
## Review 1.4 Lorem Ipsum dolor amet, consectetur

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- ☒ A. Answer 1
- ☐ B. Answer 2
- ☐ C. Answer 3
- ☐ D. Answer 4

Check Answer





Review 1.5 Lorem Ipsum dolor amet, consectetur

- ☒ A. Answer 1
- ☐ B. Answer 2
- ☐ C. Answer 3
- ☐ D. Answer 4

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Review 1.6 Lorem Ipsum dolor amet, consectetur

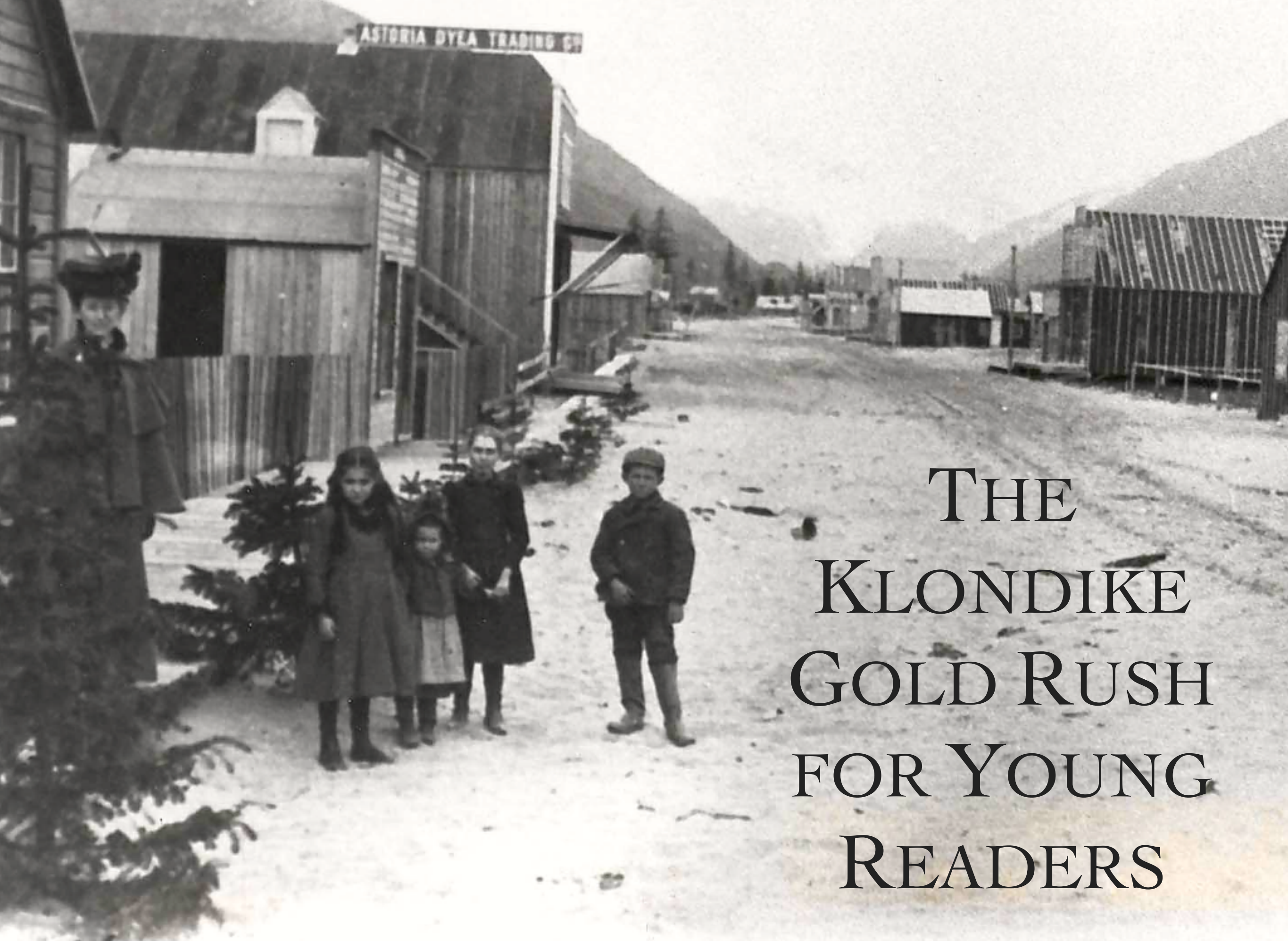
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- ☒ A. Answer 1
- ☐ B. Answer 2
- ☐ C. Answer 3
- ☐ D. Answer 4

Check Answer

GOLDEN RULE BAZAAR CO.





THE  
KLONDIKE  
GOLD RUSH  
FOR YOUNG  
READERS

## **The Klondike Gold Rush for Young Readers**

Appal, Benjamin. **We Were There in the Klondike Gold Rush.** New York: Grosse&Dunlop, 1956.

*A fictionalized account of the Klondike rush from a child's point of view. While the work is fiction, events are described accurately. Out of print. Ages: 7-11.*

Assorted authors. "The Klondike Stampede of 1897-98" in the **Cobblestone Magazine for Kids**, (August, 1989). Peterborough, NH: Cobblestone Publishing.

*Special edition of children's history magazine featuring games, articles, and activities on the Klondike Gold Rush. Ages: 6 through 12*

Cooper, Michael. **Klondike Fever-The Famous Gold Rush of 1898.** New York: Clarion Books, 1989.

*A very good account of the Klondike rush for younger readers. Illustrated with many historical photographs. Ages: 7-11*

Decremments, Barth. **The Bite of the Gold Bug.** New York: Penguin Books, 1992.

*A well written fictionalized account of a family on the Gold Rush. Ages: 7-11*

James, Edward C. **When Men Panned Gold in the Klondike.** Champaign, Illinois: Gerrard Publishing Co., 1968.

*Historically accurate, this book offers a good introduction to the "northern" end of the Klondike story. Out of Print. Ages: 7 -11*

London, Jack. **The Unabridged Jack London.** Philadelphia: Running Press, 1981.

*Some of London's best writings were based in the Klondike, including the classic **The Call of the Wild**. (Many other editions, publishers, etc. of Jack London's works are available.). Ages: 10 and up*

McNeer, May. **The Alaska Gold Rush.** New York: Random House, 1960.

*Part of the "Landmark" series of books. This is a thorough treatment of the Klondike Gold Rush for young readers*

Montgomery, Elizabeth R. **When a Ton of Gold Reached Seattle.** Champaign, Illinois: Gerrard Publishing Co., 1968.

*In a sense, a companion volume to James' **When Men Panned Gold in the Klondike**. This is a very complete treatment of what Seattle was like during the heyday of the Klondike Gold Rush. Out of Print. Ages: 7-11*

Northcutt, John. **Klondike Gold Rush National Historical Park Coloring Book.** Seattle: Northwest Interpretive Association, 1991.

*Coloring book with text providing very young students with background into the Seattle role in the Klondike Gold Rush. Ages: 4-8*

Ray, Delia. **Gold! The Klondike Adventure.** New York: Lodestar Books, 1989.

*Seattle author Ray provides a very accurate account of the Klondike Rush. Ages: 7 -11*



Service, Robert W. **Best Tales of the Yukon**. Philadelphia: Running Press, 1983.

*While he arrived in Dawson after the most frantic days of the rush had passed, Service listened to the tales of the old-timers and based some of his most famous poems on the Klondike era, including "The Shooting of Dan McGrew" and "The Cremation of Sam McGee." "The Spell of the Yukon" probably explains as much about the "why" of the gold rush as many other historical sources. Ages: 10 and up*





# RESOURCES FOR TEACHING THE KLONDIKE GOLD RUSH



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## Resources for Teaching the Klondike Gold Rush

Adney, Edwin Tappan. **The Klondike Stampede of 1897-1898.** New York: Harper & Bros., 1900. Reprint, Vancouver, B.C.; University of British Columbia Press, 1994.

*This first hand account of the Klondike stampede by Mr. Adney is excellent. Mr. Adney was a correspondent specifically sent on the Rush by Harper's Weekly. It is well written and reliable: Available at the Seattle Public Library.*

Berton, Pierre. **The Klondike Fever: The Life and Death of the Last Great Gold Rush.** New York: Alfred A Knopf, 1958.

*Considered by most students of the Klondike to be the definitive history of the great gold rush. Mr. Berton is a well known Canadian historian and commentator who is the son of a stamper and grew up in post-Rush Dawson City. Available at Klondike Gold Rush National Historical Park for purchase,*

*as well as most large bookstores in Seattle. Also available*

*from Seattle Public Library, King County Library, and most local libraries within the state of Washington.*

Bronson, William, with Richard Reinhardt. **The Last Grand Adventure.** New York: McGraw-Hill Book Co., 1977.

*This hard to come by "coffee table" book was produced to be a companion to the film "Days of Adventure, Dreams of Gold," the most popular film shown at our park Available from Seattle Public Library.*

Colliery Engineer Co. **Placer Mining: A Hand-Book for Klondike and Other Miners and Prospectors.** Scranton, PA, 1897. Reprint, Seattle, WA: Shorey Book Store, 1965.

DeArmond, Robert N. **"Stroller" White: Tales of a Klondike Newsman.** Vancouver, B.C.: Mitchell Press, 1969.

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Garland, Hamlin. **Trail of the Goldseekers: A Record of Travel in Prose and Verse.** New York: Macmillan, 1899.

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Lynch, Jeremiah. **Three Years in the Klondike.** London: Edward Arnold, 1904. Reprint, Chicago: Lakeside Press, 1967.

McMichael, Alfred G. **Klondike Letters: The Correspondence of A Gold Seeker in 1898.** Edited by Juliette C. Reinicker. Anchorage: Alaska Northwest Publishing Co., 1984.

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Roehr, Charles S. **Klondike Gold Rush Letters.** New York: Vantage Press, 1976.

Shand, Margaret Clark, and Ora M. Shand. **The Summit and Beyond.** Caldwell, 10: Caxton Press, 1959.

Tuck, Harley Elton. **Klondike Diary.** Monroe, WA: Monroe Printers, 1974.

Walden, Arthur Treadwell. **A Dog-Puncher on the Yukon.** Boston: Houghton Mifflin Co., 1928.

Wells, E. Hazard. **Magnificence and Misery: A Firsthand Account of the 1897 Klondike Gold Rush.** Edited by Randall M. Dodd. Garden City, NY: Doubleday & Co., 1984.

